

# Notice of Allowability

Application No.

10/667,875

Examiner

Nikita Wells

Applicant(s)

PEARL, ASHER

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Preliminary Amendment received 23 November 2004.
2. ☒ The allowed claim(s) is/are 1-32.
3. ☒ The drawings filed on 22 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 020205.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Nikita Wells  
Primary Examiner  
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## **Detailed Action**

### ***Examiner's amendment***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tarek N. Fahmi on February 2, 2005.

The Examiner initiated an Interview with the Applicant in order to clarify the allowable material of the invention in the independent claims 1 and 17, in order that the application could be allowed. Claims 1 and 17 are amended as follows:

In claim 1, line 4: "voltage at a second voltage range" has been changed to

--electrode at a second voltage range--. On line 7: "voltage at a fourth voltage level range" has been changed to --electrode at a fourth voltage level range--.

In claim 17, on line 5: "second voltage at a second voltage range" has been

changed to --second electrode at a second voltage range--. On line 8:

"voltage at a fourth voltage level range" has been changed to --electrode at a fourth voltage level range--.

### ***Allowable Subject Matter***

2. Claims 1-32 are allowed.

3. The following is an examiner's statement of reasons for allowance:

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With respect to the independent claims 1 and 17, prior art fails to disclose or make obvious, in combination with the other recited features of the claim limitations, a source of liquid metal ions and a method for controlling the source, comprising a tip, a first electrode and a second electrode, maintaining the first electrode at a first voltage level range and maintaining the second electrode at a second voltage range, such as to extract metal ions formed on a tip of the source, during an active mode of operation of the source; and maintaining the first electrode at a third voltage level range and maintaining the second electrode at a fourth voltage level range, such as to substantially reduce an extraction of metal ions from the tip, during an idle mode of operation of the source; whereas at least one out of the third and fourth voltage level ranges does not include zero voltage level; and whereas the first voltage level range differs than the third voltage level range. The allowable aspect of this invention is the maintenance of specific voltages on the first and second electrodes of the source such as to reduce the extraction of metal ions from the tip during the idle mode of operation of the source.

The dependent claims 2-16 and 18-32 are allowable by virtue of their dependence upon the independent claims 1 and 17, respectively.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. J.B. Jergenson (4,617,203), Clark, Jr. et al. (4,670,685), and J.N. Matossian (4,994,711) disclose the operation of a liquid metal ion source having a needle emitter.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nikita Wells, Primary Examiner  
Art Unit 2881  
February 2, 2005